The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claim 11 has been amended for clarity.

The Examiner has rejected claim 11 under 35 U.S.C. 101 as being drawn to a "program" per se as recited in the preamble and as such is non-statutory subject matter.

Applicants have amended claim 11 such that it now claims "A computer-readable medium having a program comprising instructions...." Applicants submit that claim 11 is now statutory, in that pursuant to the Examination Guide, "In contrast, a claimed computer-readable medium encoded with a computer program defines structural and functional interrelationships between the computer program and the medium which permit the computer program's functionality to be realized, and is thus statutory."

The Examiner has rejected claims 1, 2 and 4-12 under 35 U.S.C. 102(b) as being unpatentable (anticipated?) by U.S. Patent 6,175,540 to Kim. Applicants acknowledge that the Examiner has found claim 3 allowable over the prior art of record.

The Kim patent discloses a tracking control method and apparatus in which an optical detector generates two elementary signals which are processed to form a tracking control signal for controlling the tracking of a radiation beam in the tracks on an optical record carrier.

The subject invention relates to the processing of elementary signals from an optical detector to form a wobble

signal, resulting from variations being formed in the tracks of an optical record carrier, these variations being modulated to carry address information. In the subject invention, an optical detector generates at least two elementary signals which are added to form a data signal and subtracted to form a difference signal. As shown in Fig. 2, and described in the specification on page 4, lines 16-21, the difference signal PP is applied to a low-pass filter 25 (which blocks the signal components caused by wobble) and is then applied to servo circuit 26 for controlling the position of the radiation spot relative to the track. The data signal and the difference signal, as well as the at least two elementary signals, are applied to a wobble processing circuit 24 for generating an improved wobble signal.

As noted in MPEP § 2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California,* 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Claim 1 specifically recites "wobble recovery means for generating a wobble signal from said at least two elementary signals".

The Examiner states Kim discloses "wobble recovery means for generating a wobble signal (Pte) from said at least two elementary signals (Fig. 5, signals FES and SES go to elements 32, 34 to generate a Pte signal)".

Applicants submit that the Examiner is mistaken. In particular, Pte is not a wobble signal but is rather a pseudo tracking error signal in which the radio frequency component (i.e., the wobble signal) of the difference signal has been removed by the low-pass filter 34 (col. 5, lines 36-41). This is similar to that which is described in the subject specification where the difference signal PP is applied to the low-pass filter 25 specifically to block the signal components caused by wobble. Hence, contrary to the Examiner's statement, the elements 32 and 34 cannot be "wobble recovery means".

Claim 1 further states "wobble processing means for filtering said at least two elementary signals with at least an adaptive filter and for generating an improved wobble signal by subtracting said filtered elementary signals from said wobble signal."

The Examiner now states Kim discloses "wobble processing means for filtering said at least two elementary signals with at least an adaptive filter (Fig. 5, element 44) and for generating an improved wobble signal by subtracting said filtered elementary signals from said wobble signal (Fig. 5, signals FES and SES goes into element 44 (adaptive filter) and depending on the results DCOF

and Pte can either be negative and so the addition 44 become a subtraction, and generate a improved signal Te)."

Applicants again submit that the Examiner is mistaken. While Kim discloses a 2nd low-pass filter 44, which Applicants note is not an adaptive filter, this filter 44 does not filter the at least two elementary signals FES and SES. Rather, the sum and difference of the two elementary signals FES and SES are filtered in respective band-pass filters and the outputs from these band-pass filters are multiplied by each other, the output from the multiplier 42 being applied to low-pass filter 44.

With regard to the Examiner's statement that "depending on the results DCOF and Pte can either be negative and so the addition 44 become a subtraction", Applicants submit that the Examiner's arguments do not make any sense. Kim, at col. 6, line 28 specifically identifies element 48 as an adder, while claim specifically states that the filtered elementary signals are subtracted from the wobble signal. In neither case is there any discussion of the process (adding or subtracting) being dependent on the signs of the quantities. Furthermore, since Pte is not a wobble signal, the addition of the DCOF signal, i.e., the DC offset signal, which is also low-pass filtered, to the pseudo tracking error signal is not going to result in a wobble signal.

Claim 2 states "data recovery means for generating a data signal from said at least two elementary signals, wherein said adaptive filter uses filtering coefficients chosen so as to

minimize the cross-correlation between said improved wobble signal and said data signal".

The Examiner indicates that the data signal is DCS and SCS, and then again indicates that the low-pass filter 44 is the claimed adaptive filter with "filter coefficients chosen so as to minimize the cross-correlation between said improved wobble signal and said data signal".

Again, Applicants submit that the Examiner is mistaken. In particular, low-pass filter 44 of Kim comprises the combination of a resistor R1 and a capacitor C1. There is no disclosure of filter coefficients at all in Kim, nor is there any disclosure in Kim of the values of components R1 and C1 being chosen to "minimize the cross-correlation between said improved wobble signal and said data signal".

In view of the above, Applicants believe that the subject invention, as claimed, is neither anticipated nor rendered obvious by the prior art, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-12, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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